

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-052445

(43)Date of publication of application : 25.02.1997

---

(51)Int.Cl.

B41M 5/26

B41M 5/34

---

(21)Application number : 07-205932

(71)Applicant : MITSUBISHI PLASTICS IND LTD

(22)Date of filing : 11.08.1995

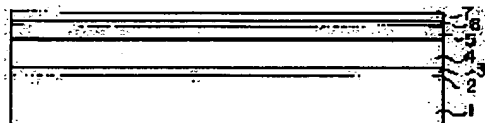
(72)Inventor : SONE SHOHEI

---

### (54) REVERSIBLE HEAT-SENSITIVE RECORDING MEDIUM

#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To realize the display of a plurality of different colors by a structure wherein a coloring layer, which has coloring portions different from each other, and a recording layer, which contains an electron donating and colorable compound and an electron acceptable compound and in which developed color state and erased color state are repeated by means of the temperature condition of heat treatment, are laminated to each other.



**SOLUTION:** This reversible heat-sensitive recording medium is produced by laminating at least a coloring layer 2 having a plurality of different coloring portions and a recording layer 5, which contains an electron donating and colorable compound and an electron acceptable compound and in which developed color state and erased color state are repeated by means of the temperature condition of heat treatment, to each other. Further, the reversible heat-sensitive recording material used in the recording layer 5 has a property to close lactone ring by coming the electron donating and colorable compound due to the softening of a polymer binder under heat, resulting in developing color. Furthermore, when the electron donating and colorable compound under developed color state is separated from the electron acceptable compound or comes into contact with the electron donating compound, the lactone ring portion is closed, resulting in erasing color.

---

**LEGAL STATUS**

[Date of request for examination] 16.07.2002

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office